

REMARKS

Claims 28-59 are pending. Claims 34-59 are withdrawn from consideration as being directed to non-elected subject matter. Claims 28-33 stand rejected under 35 U.S.C. § 112, first and second paragraphs, 35 U.S.C. § 102(b), and 35 U.S.C. § 103(a). Each of these rejections will be addressed in the order in which it appears in the Office action.

Amendments

Applicants have amended the specification to include priority information, support for which is found in the Official Filing Receipt.

Applicants have also amended claim 28 as suggested by the Office and cancelled claims 29-33 for the purpose of expediting prosecution of the present application. For the record, Applicants do not agree with the Office on the present rejections, but plan to pursue the subject matter of these claims in a continuation application.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 28-33 stand rejected under 35 U.S.C. § 112, second paragraph for indefiniteness.

In particular, the Examiner states that recitation of the term “having” in claim 28 renders the claim indefinite as it is not clear what polypeptides fall within the scope of the

claim. Because Applicants have amended claim 28 to remove this term, this aspect of the rejection is now moot.

The Examiner further asserts that claims 29-31, in reciting the terms “functionally active variant thereof,” “homology,” “at least approx. 65%,” “at least 75%,” and “at least 85%,” and claim 32, in reciting the term “variant is structurally homologous” are indefinite. As these claims have been cancelled, this aspect of the rejection is also moot.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 28-33 stand further rejected under 35 U.S.C. § 112, first paragraph as lacking an adequate written description. In applying this rejection, the Examiner asserts that the specification fails to describe molecules other than those having a sequence of SEQ ID NO: 1 or SEQ ID NO: 2 and therefore does not adequately describe the molecules that fall within the scope of the claims.

As amended, claim 28 is directed to T-cell epitopes that “consist of” the sequence of SEQ ID NO: 1 or SEQ ID NO: 2, which the Examiner has acknowledged to be adequately described. Claims 29-33 have been cancelled. Accordingly, this rejection may now be withdrawn.

Rejections under 35 U.S.C. § 102(b) and § 103(a)

Claims 28-33 also stand rejected under 35 U.S.C. § 102(b) as being anticipated by

Chan et al. (J. Virol. 66:5714-5725, 1992; hereinafter “Chan”) and under 35 U.S.C. §§ 102(b) or 103(a) as being anticipated by and/or as being obvious over Frazer et al. (WO 93/02184; hereinafter “Frazer”).

As discussed above, claim 28, as amended, is directed to a T-cell epitope consisting of the amino acid sequence of either SEQ ID NO: 1 or SEQ ID NO: 2, both of which contain nine amino acids. The amino acid sequence disclosed by Chan (Accession number M96292), however, corresponds to the complete genomic sequence of the human papilloma virus-34 (HPV-34) and contains 44 amino acids. The sequence presently claimed therefore differs from that disclosed by Chan, and the anticipation rejection in view of Chan should be withdrawn.

Turning to the second cited reference, Applicants first note that none of the polypeptides disclosed by Frazer contain the sequence of SEQ ID NO: 1. With respect to SEQ ID NO: 2, Applicants submit that the amino acid sequence taught by Frazer (corresponding to Frazer SEQ ID NO: 17) contains 15 amino acids, and therefore cannot anticipate SEQ ID NO: 2, which contains only 9 amino acids. The rejection in view of Frazer should also be withdrawn.

With respect to the § 103(a) rejection in view of Frazer, Applicants note that knowledge of the Frazer sequence does not suggest the presence, location, or function of any of the claimed amino acid sequences nor would it motivate a person skilled in the art to use any of Applicants’ claimed sequences for the purpose of inducing a T-cell

response. With regard to the Examiner's assertion that the claimed invention is obvious given that one skilled in the art "would have been motivated to fuse two or more of the recited polypeptides of Table 1 to be to be able to induce specific immune response," Applicants note that even if such motivation were present, the fusion of two or more of the polypeptides in Table 1 would not result in the production of SEQ ID NO: 1 or SEQ ID NO: 2. Thus, the T-cell epitopes of claim 28 cannot be obvious in view of Frazer, and this rejection should also be withdrawn.

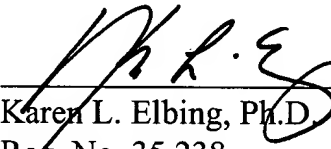
CONCLUSION

Applicants submit that the claims are now in condition of allowance, and such action is respectfully requested.

Although no charges are believed to be due, if there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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